

## Abstract

A sensor element for a sensor for determining the oxygen concentration in the exhaust gas of internal combustion engines, in particular for a broadband lambda sensor, is described, which has a solid electrolyte (11) forming a pump cell (12) together with an inner electrode (14) inside a cavity (19), and an outer electrode (13) exposed to the exhaust gas on the outside; having a prechamber (20) formed in the solid electrolyte (11), and a diffusion channel (21) formed in the solid electrolyte (11), the diffusion channel (21) connecting the prechamber (20) and the cavity (19) and being filled with a diffusion barrier (25). To prevent measuring inaccuracies of the sensor in the presence of very high quantities of hydrocarbons in the exhaust gas, a catalytic converter for the oxidation of hydrocarbons is located in the prechamber (20), the catalytic converter being configured as an electrochemical catalytic converter having two electrodes (26, 27) electrically connected with one another.